Letter on Monetary Policy

To SENATOR WILLIAM PROXMIRE
From PROFESSOR MILTON FRIEDMAN

Senator Proxmire, Wisconsin, is Vice Chairman of the Joint Economic Committee of Congress. Professor Friedman is the Paul Snowden Russell Distinguished Service Professor of Economics at the University of Chicago, and has served for a number of years as an Academic Consultant to the Board of Governors of the Federal Reserve System. Recently, Professor Friedman has been named by the Board of Governors as a member of a "Committee on Monetary and Credit Statistics."

The Honorable William Proxmire
Joint Economic Committee
United States Senate
Washington, D.C. 20510

DEAR SENATOR PROXMIRE:

On September 17, 1973, you asked the Chairman of the Board of Governors of the Federal Reserve System to comment on certain published criticisms of monetary policy. On November 6, 1973, the Chairman replied on behalf of the System. This Reply has been widely publicized by the Federal Reserve System. It was reprinted in the *Federal Reserve Bulletin* (November 1973) and in at least five of the separate Federal Reserve Bank *Reviews*.

The Reply makes many valid points. Yet, taken as a whole, it evades rather than answers the criticisms. It appears to exonerate the Federal Reserve System from any appreciable responsibility for the current inflation, yet a close reading reveals that it does not do so, and other evidence, to which the Reply does not refer, establishes a strong case that the Fed has contributed to inflation. The Reply appears to attribute admitted errors in monetary policy to forces outside the Fed, yet the difficulties in controlling and measuring the money supply are largely of the Fed's own making.

The essence of the System's answer to the criticisms is contained in three sentences, one dealing with the Fed's responsibility for the 1973 inflation; the other two, with the problem of controlling and measuring the money supply. I shall discuss each in turn.

RESPONSIBILITY FOR INFLATION

> *The severe rate of inflation that we have experienced in 1973 cannot responsibly be attributed to monetary management* (italics added).

As written, this sentence is unexceptionable. Delete the word "severe," and the sentence is indefensible.

The Reply correctly cites a number of special factors that made the inflation in 1973 more severe than could have been expected from prior monetary growth alone – the world-wide economic boom, ecological impediments to investment, escalating farm prices, energy shortages. These factors may well explain why consumer prices rose by 8 percent in 1973 (fourth quarter 1972 to fourth quarter 1973) instead of, say, by 6 percent. But they do not explain why inflation in 1973 would have been as high as 6 percent in their absence. They do not explain why consumer prices rose more than 25 percent in the five years from 1968 to 1973.

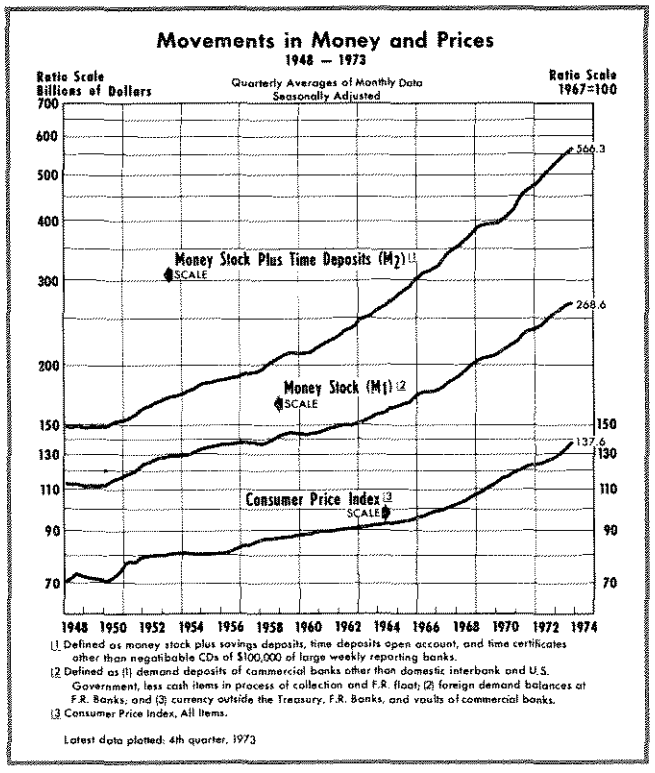
The Reply recognizes that "the effects of stabilization policies occur gradually over time" and that "it is never safe to rely on just one concept of money." Yet, the Reply presents statistical data on the growth of money or income or prices for only 1972 and 1973, and for only one of the three monetary concepts it refers to, namely, M_1 (currency plus demand deposits), the one that had the lowest rate of growth. On the basis of the evidence in the Reply, there is no way to evaluate the longer-term policies of the Fed, or to compare current monetary policy with earlier policy, or one concept of money with another.

From calendar year 1970 to calendar year 1973, M_1 grew at the annual rate of 6.9 percent; in the preceding decade, from 1960 to 1970, at 4.2 percent. More striking yet, the rate of growth from 1970 to 1973 was higher than for any other three-year period since the end of World War II.

The other monetary concepts tell the same story. From 1970 to 1973, M_2 (M_1 plus commercial bank time deposits other than large CDs) grew at the annual rate of 10.5 percent; from 1960 to 1970, at 6.7 percent. From 1970 to 1973, M_3 (M_2 plus deposits at nonbank thrift institutions) grew at the annual rate of 12.0 percent; from 1960 to 1970, at 7.2 percent. For both M_2 and M_3, the rates of growth from 1970 to

1973 are higher than for any other three-year period since World War II.

As the accompanying chart demonstrates, prices show the same pattern as monetary growth except for the Korean War inflation. In the early 1960s, consumer prices rose at a rate of 1 to 2 percent per year; from 1970 to 1973, at an average rate of 4.6 percent; currently, they are rising at a rate of not far from 10 percent. The accelerated rise in the quantity of money has clearly been reflected, after some delay, in a similar accelerated rise in prices.



However limited may be the Fed's ability to control monetary aggregates from quarter to quarter or even year to year, the monetary acceleration depicted in the chart, which extended over more than a decade, could not have occurred without the Fed's acquiescence — to put it mildly. And however loose may be the year-to-year relation between monetary growth and inflation, the acceleration in the rate of inflation over the past decade could not have occurred without the prior monetary acceleration.

Whatever therefore may be the verdict on the short-run relations to which the Reply restricts itself, the Fed's long-run policies have played a major role in producing our present inflation.

There is much evidence on the shorter-term as well as the longer-term relations. Studies for the United States and many other countries reveal highly consistent patterns. A substantial change in the rate of monetary growth which is sustained for more than a few months tends to be followed some six or nine months later by a change in the same direction in the rate of growth of total dollar spending. To begin with, most of the change in spending is reflected in output and employment. Typically, though not always, it takes another year to 18 months before the change in monetary growth is reflected in prices. On the average, therefore, it takes something like two years for a higher or lower rate of monetary growth to be reflected in a higher or lower rate of inflation.

Table I illustrates this relation between monetary growth and prices. It shows rates of change for three monetary aggregates and for consumer prices over two-year spans measured from the first quarter of the corresponding years. The average delay in the effect of monetary change on prices is allowed for by matching each biennium for prices with the prior biennium for money. Clearly, on the average, prices reflect the behavior of money two years earlier.

Table I

Money and Prices

(Annual Rates of Change, First Qtr. to First Qtr.)

	Monetary Measures			Consumer Prices	
	M_1	M_2	M_3		
1959-61	0.8%	2.5%	4.6%	1.1%	1961-63
1961-63	2.4	5.9	7.6	1.3	1963-65
1963-65	4.1	6.9	8.3	2.7	1965-67
1965-67	3.7	7.2	6.7	4.2	1967-69
1967-69	7.3	9.4	8.8	5.5	1969-71
1969-71	4.8	6.3	6.3	3.9	1971-73
1971-73	7.2	10.4	12.6	9.1*	1973-

*First quarter 1973 to fourth quarter 1973.

To avoid misunderstanding, let me stress that, as the table illustrates, this is an *average* relationship, not a precise relationship that can be expected to hold in exactly the same way in every month or year or even decade. As the Reply properly stresses, many factors affect the course of prices other than changes in the quantity of money. Over short periods, they may sometimes be more important. But the Federal Reserve, and the Federal Reserve alone, has the responsibility for the quantity of money; it does not have the responsibility, and certainly not sole responsibility, for the other factors that affect inflation. And the record is unmistakably clear that, over the past three years taken as a whole, the Federal Reserve System has exercised that responsibility in a way that has exacerbated inflation.

This conclusion holds not only for the three years as a whole but also for each year separately, as Table II shows. The one encouraging feature is the slightly lower rate of growth of M_2 and M_3 from 1972 to 1973 than in the earlier two years. But the tapering off is mild and it is not clear that it is continuing. More important, even these lower rates are far too high. Steady growth of M_2 at 9 or 10 percent would lead to an inflation of about 6 or 7 percent per year. To bring inflation down to 3 percent, let alone to zero, the rate of growth of M_2 must be reduced to something like 5 to 7 percent.

Table II

Recent Monetary Growth Rates
(Percent Change, Annual Data)

	M_1	M_2	M_3
1970-71	7.0%	11.8%	12.8%
1971-72	6.4	10.2	12.5
1972-73	7.4	9.5	10.7

CONTROLLING AND MEASURING THE MONEY SUPPLY

The conduct of monetary policy could be improved if steps were taken to increase the precision with which the money supply can be controlled by the Federal Reserve. Part of the present control problem stems from statistical inadequacies (italics added).

Again these sentences from the Reply are literally correct, but they give not the slightest indication that the difficulties of controlling and measuring the money supply are predominantly of the Fed's own making. The only specific problems that the Reply mentions are the "paucity of data on deposits at nonmember banks" and the fact that "nonmember banks are not subject to the same reserve requirements as are Federal Reserve members."

Nonmember deposits do raise problems in measuring and controlling the money supply, but they are minor compared to other factors. The Reply's emphasis on them is understandable on other grounds. Almost since it was established in 1914, the Fed has been anxious to bring all commercial banks into the System, and has been worried about the defection of banks from member to nonmember status. It has therefore seized every occasion, such as the Reply provides, to stress the desirability of requiring all banks to be members of the System, or at least subject to the same reserve requirements as member banks.

Control

Nonmember banks raise a minor problem with respect to control. Their reserve ratios do differ from those of member banks. But nonmember banks hold only one-quarter of all deposits. This fraction tends to change rather predictably, and changes in it can be monitored and offset by open market operations.

A far more important problem with respect to control is the lagged reserve requirement that was introduced by the Fed in 1968. This change has not worked as it was expected to. Instead, by introducing additional delay between Federal Reserve open market operations and the money supply, it has appreciably reduced "the precision with which the money supply can be controlled by the Federal Reserve." Other measures taken by the Fed have had the same effect. In an article on this subject published recently, George Kaufman, long an economist with the Federal Reserve System, concluded, "by increasing the complexity of the money multiplier, proliferating rate ceilings on different types of deposits, and encouraging banks, albeit unintentionally, to search out nondeposit sources of funds, the Federal Reserve has increased its own difficulty in controlling the stock of money. . . . To the extent the increased difficulty supports the long voiced contention of some Federal Reserve officials that they are unable to control the stock of money even if they so wished, the actions truly represent a self-fulfilling prophecy."

Even more basic is the procedure used by the Open Market Desk of the New York Federal Reserve Bank in carrying out the directives of the Open Market Committee. These directives have increasingly been stated in terms of desired changes in monetary aggregates rather than in money market conditions. However, the Desk has not adapted its procedure to the new objective. Instead, it tries to use money market conditions (that is, interest rates) as an indirect device to control monetary aggregates. Many students of the subject believe that this technique is inefficient. Money market conditions are affected by many forces other than the Fed's operations. As a result, the Desk cannot control money market conditions very accurately and cannot predict accurately what changes in money market conditions are required to produce the desired change in monetary aggregates.

An alternative procedure would be to operate directly on high-powered money, which the Fed can control to a high degree of precision. Many of us believe that the changes in high-powered money required to produce the desired change in monetary

aggregates can be estimated tolerably closely, even now. They could be estimated with still greater precision if the Fed were to rationalize the structure of reserve requirements.

Measurement

Repeatedly, in the past few years, the Fed's statisticians have retrospectively revised estimates of monetary aggregates, and sometimes, as in December 1972, by very substantial amounts.

The one source of measurement error mentioned in the Reply is the unavailability of data on nonmember banks. This is a source of error because nonmember banks report deposit data on only two, or sometimes four, dates a year. The resulting error in estimates for intervening or subsequent dates has sometimes been sizable, but mostly it has accounted for a minor part of the statistical revisions. In any event, this source of error can be reduced drastically by sampling and other devices which the Fed could undertake on its own without additional legislation.

More important sources of error are seasonal adjustment procedures and the estimation and treatment of cash items, nondeposit liabilities, and foreign held deposits.

It has long seemed to me little short of scandalous that the money supply figures should require such substantial and frequent revision. The Fed is itself the primary source of data required to measure the money supply; it can get additional data it may need; it has a large and highly qualified research staff. Yet for years it has failed to undertake the research effort necessary to correct known defects in its money supply series.[1]

CONCLUSION

For more than a decade, monetary growth has been accelerating. It has been higher in the past three years than in any other three-year period since the end of World War II. Inflation has also accelerated over the past decade. It too has been higher in the past three years than in any other three-year period since 1947. Economic theory and empirical evidence combine to establish a strong presumption that the acceleration in monetary growth is largely responsible for the acceleration in inflation. Nothing in the Reply of the Chairman of the Federal Reserve System to your letter contradicts or even questions that conclusion. And nothing in that Reply denies that the Federal Reserve System had the power to prevent the sharp acceleration in monetary growth.

I recognize, of course, that there are now, and have been in the past, strong political pressures on the Fed to continue rapid monetary growth. Once inflation has proceeded as far as it already has, it will, as the Reply says, take some time to eliminate it. Moreover, there is literally no way to end inflation that will not involve a temporary, though perhaps fairly protracted, period of low economic growth and relatively high unemployment. Avoidance of the earlier excessive monetary growth would have had far less costly consequences for the community than cutting monetary growth down to an appropriate level will now have. But the damage has been done. The longer we wait, the harder it will be. And there is no other way to stop inflation.

The only justification for the Fed's vaunted independence is to enable it to take measures that are wise for the long run even if not popular in the short run. That is why it is so discouraging to have the Reply consist almost entirely of a denial of responsibility for inflation and an attempt to place the blame elsewhere.

If the Fed does not explain to the public the nature of our problem and the costs involved in ending inflation; if it does not take the lead in imposing the temporarily unpopular measures required, who will?

Sincerely yours,

MILTON FRIEDMAN
Professor of Economics

[1]On January 31, 1974, after this comment had been drafted, the Board of Governors of the Federal Reserve System announced "the formation of a special committee of prominent academic experts to review concepts, procedures and methodology involved in estimating the money supply and other monetary aggregates." I have agreed to serve as a member of this committee.